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Space and Missile Systems Center Compliance Specifications and Standards

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14. ABSTRACT
This TOR documents the 2015 issuance of the SMC compliance standards list, superseding the Feb 2013 list and its interim updates. This document has a companion document - TOR-2015-03036 - which will be issued as a compact disc.

15. SUBJECT TERMS
Space and Missile Systems Center, SMC, Standards

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Acknowledgments

The Space and Missile Systems Center (SMC) specifications and standards (S&S) revitalization program was established in 2003 under the leadership of the SMC Chief Systems Engineer. The strong direction and vision that continues to be provided by the SMC Chief Systems Engineer enables the SMC S&S activity to effectively evolve in a manner that is reducing space system acquisition risk and increasing mission assurance.

The author would like to sincerely thank the Aerospace subject matter experts who support the development, maintenance, and/or implementation of the specifications and standards cited in this document. Without their diligent efforts and extensive technical background, much of this effort could not be accomplished.

It is also important to acknowledge the ongoing standards coordination efforts of the nongovernmental standards development organizations and the Aerospace Engineering and Technology Group (ETG) Specifications and Standards Community of Practice, each of which contributes to the effective development and implementation of the specifications and standards required to provide mission assurance and acquisition success.

Finally, thanks are expressed to the space system development industry, which has participated in this process as part of corporate commitments to national security space.

Foreword

The Aerospace Corporation, in support of the SMC Chief Engineer (SMC/EN), has prepared this technical operating report (TOR) to document the most recent update of the SMC compliance standards for SMC acquisitions.

The SMC specifications and standards effort is chaired by the SMC Chief Systems Engineer. This effort has led the development of updated specifications and standards to address known acquisition issues experienced by SMC programs. Coordination with other agencies involved in space systems is done to disseminate and encourage common usage of space acquisition-related documents.

This TOR contains the July 2015 SMC/EN-approved revision to the SMC compliance standards list. An accompanying Aerospace report, TOR-2015-03036, published as a compact disc, contains all of the compliance documents that are not restricted by copyright or license restrictions.

This document and its accompanying CD supersede all previous Aerospace reports on this subject, including:

- TOR-2003(8583)-2 and its four revisions
- TOR-2006(8583)-5661 and an accompanying CD, TOR-2006(8583)-5662
- TOR-2007(8583)-6475 and an accompanying CD, TOR-2007(8583)-6491
- TOR-2008(8583)-8215 and an accompanying CD, TOR-2008(8583)-8216
- TOR-2010(8591)-21 and an accompanying CD, TOR-2010(8591)-22
- TOR-2013(8960)-3 and an accompanying CD, TOR-2013(8960)-4

Contents

1. Space and Missile Systems Center Specs and Standards Program

USAF Space and Missile Systems Center (SMC) reintroduced the use of specifications and standards (S&S) in 2003 to define program technical baselines. These standards are being used as compliance documents on SMC contracts.

1.1 Specifications and Standards Instruction

SMC Instruction (SMCI) 63-106, *Specifications and Standards*, establishes the SMC-wide application of S&S, including:

- Organizational roles and responsibilities
- Process for developing and maintaining S&S
- S&S information management
- Application of S&S on SMC contracts
- S&S training

SMCI 63-106 can be obtained from the USAF e-Publishing website (http://www.e-publishing.af.mil/). Search "Publications" for "SMCI63-106."

1.2 SMC Specifications and Standards Working Group

The SMC Specifications and Standards Working Group (SMC S&S WG) operates on a continuous basis to accomplish the following activities with regard to the SMC master list of specifications and standards:

- Needs analysis to determine additional areas requiring specifications and standards
- Development/update of the SMC compliance standards list
- Development of Aerospace/industry technical documents addressing technical-needs areas
- Technical evaluation of newly developed/revised technical documents
- Interfacing and coordination with the Aerospace S&S Community of Practice
- Maintenance of the SMC and Aerospace specifications and standards document repositories
- Coordination, together with the SMC Acquisition Center of Excellence (ACE) and the SMC programs, for "smart tailoring" of the SMC Compliance Standards List and individual standards for use on specific procurements
- Interfacing with other government- and industry-standards development organizations and normalization activities
- Interfacing with space-related primes and major subcontractors for awareness to changes in SMC S&S, review of new/updated S&S, and sharing of program experiences in which S&S are implemented

The SMC Chief Systems Engineer chairs the SMC S&S WG that directs space-domain standards development, evaluates and adopts externally developed standards, and implements/applies these where appropriate to SMC programs. The working group calls upon a large number of subject matter experts (SMEs) for technical evaluation, development, and implementation of the standards and related

Aerospace technical operating reports (TORs) and/or technical reports (TRs). These SMEs primarily are from The Aerospace Corporation's Engineering and Technology Group (ETG).

Standards being implemented at SMC are reviewed and approved by the SMC Chief Systems Engineer and SMC/ENE. The SMC Chief Engineer – SMC/EN is the final approval authority for SMC standards and the SMC Compliance List.

1.3 SMC Technical Baseline

The SMC technical baseline includes the set of technical practices required to reduce acquisition/ operational risk and to provide for the successful accomplishment of space system development. The standards in the SMC baseline are specifically oriented toward identifying the necessary technical activities, products, and attributes, rather than specific process models or methods.

The SMC compliance standards are documented in the SMC Compliance Standards List and are authorized for use in new contracts.

The following types of documents are eligible for inclusion:

- Military and government standards (possibly including some that were canceled under acquisition reform)
- Nongovernment standards (NGS) published by national, international, and industry associations
- SMC or other national space organization standards
- Published reports of The Aerospace Corporation: technical reports (TRs) published specifically as recommended standards (TR-RSs) or technical operating reports (TORs) for tailoring/support material. In general these will be converted to SMC standards prior to use on SMC contracts.

The SMC Compliance Standards List is issued periodically as significant changes occur or as a number of less significant changes occur. Interim updates are made to the list and announced to all stakeholders as they happen.

2. SMC Compliance Standards

The changes to the baseline of SMC standards that result in the current SMC Compliance Standards List are documented in Appendix A. For each change, the rationale/justification for the change is summarized.

The current approved SMC Compliance Standards List (officially called the "Specifications and Standards Master List" in SMC Instruction 63-106) is presented in Appendix B.

A table of how the SMC compliance standards can be applied to specific categories of SMC contracts is presented in Appendix C. This table should be used by SMC system program offices for the initial tailoring of the SMC Compliance Standards List, specifically for the selection of applicable standards. Additional tailoring of the selected standards based on specific system/contract requirements should be conducted by the programs in collaboration with acquisition support staff during request for proposal (RFP) preparation.

All users are invited to submit comments that recommend substantive improvements in the SMC Compliance Standards List or any individual standard. The comment form and submittal instructions are provided in Appendix D.

3. Public Availability of Specifications and Standards

3.1 Military and Government Standards

Military standards and data item descriptions can be downloaded free of charge from the Department of Defense Single Supply Point (DODSSP), which is the official source of DOD specifications and standards. The DODSSP can be accessed via the ASSIST database (http://quicksearch.dla.mil). The ASSIST QuickSearch functionality provides access to all documents without the need for an ASSIST username and password. United States government documents can also be procured from the U.S. Government Printing Office at http://bookstore.gpo.gov/ and http://www.gpoaccess.gov/databases.html.

The information assurance government documents can be accessed at the Information Assurance Support Environment web site (http://iase.disa.mil/policy-guidance/index.html).

A comprehensive commercial repository of SMC standards and tailoring documents that are available free of charge and for immediate download can be found on the Internet (http://www.everyspec.com, select Library, then USAF, then USAF-SMC/).

3.2 Nongovernment Standards

Nongovernment standards (NGS) can be purchased directly from the specific industry association or from a commercial standards warehouse. In general, these national, international, and industry standards are licensed to the purchaser and are not distributable beyond the terms of the individual license. This is a legal and ethical limitation that cannot be altered by anyone except the copyright owner.

The DODSSP provides adoption notices for NGS that have been formally adopted by the Defense Standardization Program, but it does not currently have an enterprise-wide licensing agreement for the distribution of NGS. Deviations to this general statement are known to exist where specific agreements have been made between DOD and a particular NGS; these special agreements are documented in the adoption notices.

Please check with your organization's library or data management office to obtain a copy that is licensed to your organization.

3.3 Aerospace Corporation Reports

Aerospace reports can be requested form the Aerospace corporate library. Some reports may have distribution restrictions. A fee for Aerospace reports or CDs may be charged. Requests should be sent on official corporate letterhead to:

The Aerospace Corporation Library
Mail Stop M1-199
P.O. Box 92957
Los Angeles, CA 90009-2957

Requests should include the TR or TOR numbers, titles, and authors. For additional information, contact a reference librarian at 310.336.5110.

3.4 SMC and Aerospace Web Access

SMC maintains a library of the SMC compliance standards on the Livelink intranet site, in the Process Asset Library (PAL) folder named "SMC Specs and Stds – Compliance List – CURRENT." This site is kept up to date as the list changes (major signed updates as well as interim updates) and is the best source to ensure access to the most recent version of the SMC compliance standards:

https://smclivelink.losangeles.af.mil/Livelink/llisapi.dll?func=ll&objId=43578433&objAction=browse&viewType=1

Aerospace also maintains an identical site of the SMC compliance standards on the Aerolink intranet:

https://aerolink.aero.org/cs/llisapi.dll?func=ll&objId=19289589&objAction=browse&sort=name

The USAF Livelink and Aerospace Aerolink repositories contain the contents of the CD associated with this TOR in the "as published" format. The folder structure is:

Folder 0: Interim updates approved for use
(populated with new/updated distributable documents when interim updates are approved)

Folder 1: SMC compliance standards program
(SMC governance documents)

Folder 2: Compliance standards
(all distributable standards on the SMC Compliance Standards List

Folder 3: Public access to standards
(spreadsheet of document source URLs)

Aerospace maintains an electronic library of all deliverable reports including those written as standards and reports associated with stakeholder reviews of standards being developed.

Aerospace also maintains a digital library of the SMC compliance standards on The Aerospace Corporation AeroLink (S&S COP site) and the Mission Assurance Portal (MAP.aero.org), including access to many national/international/industry standards that are licensed for use by personnel of The Aerospace Corporation:

https://aerolink.aero.org/cs/llisapi.dll?func=llworkspace

3.5 Compact Disc (CD)

If access is not available to either the SMC or Aerospace intranet standards repository, the publicly distributable documents associated with the SMC Compliance Specifications and Standards program are archived on CD.

The CD contains all of the documents described in this report, except industry association standards (e.g., ISO, IEEE, SAE International, AIAA, etc.), which cannot be freely distributed because of licensing restrictions.

Also on the CD is an Excel® workbook that contains the tables contained in this TOR.

3.6 Interim Updates to the SMC Compliance Standards List

The SMC compliance list evolves as standards are updated. Prior to any interim announcements, the databases described in Sections 3.1 through 3.4 will be updated as appropriate. Always verify the current status of the SMC compliance list and standards before using the CD or any previously printed documentation as a source.

Interim updates are announced in emails to Aerospace, government, and industry as they occur, but this TOR and the CD generally are not revised. Interim announcements will be made by email from the author to Aerospace, external government, and industry. External government and industry entities will be provided with PDF files of the updated standards. Interim announcements will be made to SMC programs (directors, deputies, chief engineers, and their support) by SMC/EN.

Appendix A. Revisions to the SMC Compliance Standards

The revisions that have been made to update the SMC Compliance Standards List are documented below.

Change To List Type [change code]	Number	% of list
Updated [U]	18	27
Revalidated [R]	4	6
Deleted without replacement [D]	1	2
New Addition [N]	3	4
Replacement based on SMC standard [B]	4	6
Admin corrections [A]	2	3
TOTAL CHANGES	**32**	**47**

Revisions to the SMC Compliance Standards

Line #	Document Number	Title	Pub Date	Change Justification	Change Code
1	SMC Standard SMC-S-019, Rev A	Program and Subcontractor Management	2008		
2	~~SMC Standard SMC-S-021, Vol 1~~	~~Technical Reviews & Audits for Systems, Equipment and Computer Software~~	~~2009~~		
	IEEE 15288.2	Technical Reviews and Audits on Defense Programs	2014	Developed within a nongovernmental standards development process by joint government-industry working group at the direction of the Defense Standardization Council to reinstitute selected canceled standards. Released as interim update to SMC 2013 list.	B
3	~~SMC Standard SMC-S-002~~	~~Configuration Management~~	~~2008~~		
	SAE 649-1 and SMC tailoring	Configuration Management Requirements for Defense Contracts	2014	Developed within a nongovernmental standards development process by joint government-industry working group at the direction of the Defense Standardization Council to reinstitute selected canceled standards. Released as interim update to SMC 2013 list.	B
	SMC Standard SMC-T-007	SMC Tailoring of EIA 649-1 – ECP change classes	2015	Added to resolve issue with definition of Major (Class I) ECPs that were not included in the standard. Released as interim update to SMC 2013 list.	N
4	~~MIL-STD-1528A without Notice 1~~	~~Manufacturing Management~~	~~1986~~		
	SAE AS6500	Manufacturing Management Program	2014	Developed within a nongovernmental standards development process by joint government-industry working group to replace canceled MIL-STD-1528A. DOD adopted. Previously announced as interim updates to 2013 SMC Compliance Standards List.	U
5	ISO 17666	Space Systems - Risk Management	2003		
6	~~ANSI/EIA 748-B~~	~~Earned Value Management Systems~~	~~2007~~		
	ANSI/EIA 748-C	Earned Value Management Systems	2013	Refreshed/reaffirmed within a nongovernmental standards development process by joint government-industry working group. Required by policy – FAR and DFARS.	R

Revisions to the SMC Compliance Standards

Line #	Document Number	Title	Pub Date	Change Justification	Change Code
7	~~SMC Standard SMC-S-001~~	~~Systems Engineering~~	~~2010~~	~~Superseded by SMC-S-001 (2013)~~	
	~~SMC Standard SMC-S-001~~ ~~include SMC tailoring: SMC-T-005 (2014)~~	~~Systems Engineering~~	~~2013~~	~~SMC-S-001 revised IAW periodic update and stakeholder review process. SMC-T-005 added per direction of SMC/EN and SMC risk management consultant. Previously announced as interim updates to Feb 2013 SMC compliance standards list.~~	
	ISO EIA 15288	Systems and Software Engineering — System Life Cycle Processes	2015	Updated IAW nongovernmental standards developer process with industry participation. DOD adopted. Required for use with IEEE 15288.1 standard for defense systems engineering. Released as interim update to SMC 2013 list.	N
	IEEE 15288.1 and SMC tailoring	Application of Systems Engineering on Defense Programs	2014	Developed within a nongovernmental standards development process by joint government-industry working group at the direction of the Defense Standardization Council to reinstitute selected canceled standards. Released as interim update to SMC 2013 list.	B
	SMC-T-006	Specialty Engineering Supplement to IEEE 15288.1	2015	Added to transfer specialty engineering planning requirements from SMC-S-001 to IEEE 15288.1 to maintain the baseline of effective practices for high-reliability space. Released as interim update to SMC 2013 list.	B
	SMC-T-005	SMC Risk Management Supplement to IEEE 15288.1	2015	Added to transfer risk management requirements in SMC-T-005 from SMC-S-001 to IEEE 15288.1 to maintain the baseline of effective practices for risk management at SMC. Released as interim update to SMC 2013 list.	U

Revisions to the SMC Compliance Standards

Line #	Document Number	Title	Pub Date	Change Justification	Change Code
8	~~SMC Standard SMC-S-003~~	~~Quality Systems~~	~~2008~~		
	SMC Standard SMC-S-003	Quality Space and Launch Requirements Addendum to AS9100C	2015	Updated within the Aerospace/SMC development process based on program experience and industry/technology changes. Included full stakeholder review and comment adjudication prior to publication as Aerospace TR-RS-2015-00003. Released as interim update to SMC 2013 list.	U
	SAE AS9100 Rev. C	Quality Systems – Aerospace – Model for Quality Assurance in Design, Development, Production, Installation and Servicing	2009		
9	~~DoDI 8500.2~~	~~Information Assurance Implementation~~	~~2003~~		
	CNSSI 1253	Security Categorization and Control Selection for National Security Systems	2014	Update per SMC/ENP. Superseding document.	U
10	~~DCID 6/3 Manual~~	~~Protecting Sensitive Compartmented Information Within Information Systems~~	~~2003~~	Update per SMC/ENP. Document superseded and no longer in use.	D
	Intelligence Community Directive Number 503	Intelligence Community Information Technology System Security Risk Management, Certification, & Accreditation	2005		
11	DOD 5220-22M	National Industrial Security Program	2006		
12	~~DODI 8510.01~~	~~DoD Information Assurance Certification and Accreditation Process (DIACAP)~~	~~2007~~		
	DODI 8510.01	Risk Management Framework (RMF) for DoD Information Technology (IT)	2014	Update per SMC/ENP. Superseding document.	U
13	DODI 5200.39-M incorporating Change 1	Critical Program Information (CPI) Protection Within DoD	2011		
14	~~AFPAM 63-1701~~	~~Program Protection Planning~~	~~2003~~		
	AFPAM 63-113	Program Protection Planning for Life Cycle Management	2013	Update per SMC/ENP. Superseding document.	U
15	AFPD 63-17	Technology and Acquisition Systems Security Program Protection	2001		
16	AIAA S-110-2005	Space Systems — Structures, Structural Components, and Structural Assemblies	2005		
17	SMC Standard SMC-S-004	Independent Structural Loads Analysis	2008		
18	AIAA S-114-2005	Moving Mechanical Assemblies for Space and Launch Vehicles	2005		

Revisions to the SMC Compliance Standards

Line #	Document Number	Title	Pub Date	Change Justification	Change Code
19	AIAA S-080-1998	Space Systems, Metallic Pressure Vessels, Pressurized Structures, and Pressure Components	1998		
20	AIAA S-081A-2006	Space Systems — Composite Overwrapped Pressure Vessels (COPVs)	2006		
21	~~SMC Standard SMC-S-005~~	~~Space Systems – Flight Pressurized Systems~~	~~2009~~		
	SMC Standard SMC-S-005	Space Systems – Flight Pressurized Systems	2015	Updated within the Aerospace/SMC development process based on program experience and industry/technology changes. Included full stakeholder review and comment adjudication prior to publication as Aerospace Corp report TR-RS-2015-00005. Previously announced as interim update to 2013 SMC Compliance Standards List.	U
22	SMC Standard SMC-S-006	Solid Rocket Motor Case Design & Test Requirements	2008		
23	AIAA S-122-2007	Electrical Power Systems for Unmanned Spacecraft	2007		
24	SMC Standard SMC-S-020	Technical Requirements for Wiring Harness, Space Vehicle	2009		
25	SMC Standard SMC-S-007	Space Battery	2008		
26	SMC Standard SMC-S-017	Lithium Ion Battery for Spacecraft Applications	2008		
27	SMC Standard SMC-S-018	Lithium Ion Battery for Launch Vehicle Applications	2008		
28	~~AIAA S-111-2005~~	~~Qualification and Quality Requirements for Space-Qualified Solar Cells~~	~~2005~~		
	AIAA S-111A-2014	Qualification and Quality Requirements for Space Solar Cells	2014	Updated IAW nongovernmental standards development process with industry participation. Previously announced as interim update to 2013 SMC Compliance Standards List.	U
29	~~AIAA S-112-2005~~	~~Qualification and Quality Requirements for Space-Qualified Solar Panels~~	~~2005~~		
	AIAA S-112A-2013	Qualification and Quality Requirements for Electrical Components on Space Solar Panels	2013	Updated IAW nongovernmental standards development process with industry participation. Previously announced as interim update to 2013 SMC Compliance Standards List.	U

Revisions to the SMC Compliance Standards

Line #	Document Number	Title	Pub Date	Change Justification	Change Code
30	SMC Standard SMC-S-008	Electromagnetic Compatibility Requirements for Space Equipment and Systems	2008		
31	MIL-STD-461F	Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment	~~2008~~ 2007	Corrected publication date error.	A
32	MIL-STD-1542B	EMC Grounding Requirements for Space System Facilities	1991		
33	AIAA S-113-2005	Criteria for Explosive Systems and Devices Used on Space and Launch Vehicles	2005		
34	ASTM E 1548-2009	Standard Practice for Preparation of Aerospace Contamination Control Plans	2009		
35	~~ANSI/AIAA R-100A-2001~~	~~Recommended Practice for Parts Management~~	~~2001~~		
	MIL-STD-3018	Parts Management	2015	Recently updated IAW Defense Standardization Program processes. Implements current best practices and addresses counterfeit parts.	N
36	~~SMC Standard SMC-S-009~~	~~Parts, Materials, & Processes Control Program for Space and Launch Vehicles~~	~~2009~~		
	SMC Standard SMC-S-009	Parts, Materials, & Processes Control Program for Space and Launch Vehicles	2013	Revision IAW periodic update and stakeholder review process. Previously announced as interim update to 2013 SMC Compliance Standards List.	U
37	~~SMC Standard SMC-S-010~~	~~Technical Requirements for Electronic Parts, Materials, and Processes For Space and Launch Vehicles~~	~~2009~~		
	SMC Standard SMC-S-010	Technical Requirements for Electronic Parts, Materials, and Processes For Space and Launch Vehicles	2013	Revision IAW periodic update and stakeholder review process. Previously announced as interim update to 2013 SMC Compliance Standards List.	U
38	SMC Standard SMC-S-011	Parts, Materials, and Processes Control Program for Expendable Launch Vehicles	~~2012~~ 2015	Updated within the Aerospace/SMC development process based on program experience and industry/technology changes. Included full stakeholder review and comment adjudication prior to publication as Aerospace TR-RS-2015-00011.	U
39	ISO/IEC 15939	Software Engineering – Software Measurement Process	2007		

Revisions to the SMC Compliance Standards

Line #	Document Number	Title	Pub Date	Change Justification	Change Code
40	~~SMC Standard SMC-S-012~~	~~Software Development for Space Systems~~	~~2008~~		
	SMC Standard SMC-S-012	Software Development	2015	Updated within the Aerospace/SMC development process based on program experience and industry/technology changes. Included full stakeholder review and comment adjudication prior to publication as Aerospace TR-RS-2015-00012. Previously announced as interim update to 2013 SMC Compliance Standards List.	U
41	DOD Arch V2.1	DOD Architecture Framework Volumes I, II, and III	2009	Version update - implementation tools only.	U
42	DISR (current version)	DOD Information Technology Standards Registry (DISR)	n/a		
43	SMC Standard SMC-S-013	Reliability Program for Space Systems	2008		
44	MIL-STD-785B and Notices 1 & 2 only	Reliability Program for Systems and Equipment Development and Production	1988		
45	SMC Standard SMC-S-014	Survivability Program for Space Systems	2010		
46	MIL-STD-470B	Maintainability Program for Systems and Equipment	1989		
47	MIL-STD-1472G	DoD Design Criteria Standard – Human Engineering	2012		
48	SMC Standard SMC-S-023, Vols. 1 & 2	Human Computer Interface Design Criteria Vol. 1: User Interface Requirements Vol. 2: Space System Operations Displays	2010		

Revisions to the SMC Compliance Standards

Line #	Document Number	Title	Pub Date	Change Justification	Change Code
49	~~EIA HEB-1A~~	~~Electronic Industries Alliance Engineering Bulletin - Human Engineering - Principles and Practices~~	~~2005~~		
	EIA[1] HEB-1B	Electronic Industries Alliance Engineering Bulletin – Human Engineering – Principles and Practices	2014	Transfer of document from GEIA[2] to SAE International[3] per assumption of TechAmerica assets. No change to document other than notice explaining the document transfer.	R
50	MIL-PRF-49506	Logistics Management Information	1996		
51	MIL-STD-1545	Optional Spare Parts, Maintenance and Inventory Support of Space and Missile System	~~1977~~ ~~1992~~ 2013	Revalidated per Defense Standardization Program requirements and process.	R
	MIL-STD-1538	Spare Parts and Maintenance Support of Space and Missile Systems Undergoing RDT&E	~~1973~~ ~~1992~~ 2013	Revalidated per Defense Standardization Program requirements and process.	R
52	MIL-STD-130N	Identification Marking of U.S. Military Property	2007		
53	MIL-STD-1367A without Notice 1	Packaging, Handling, Storage, and Transportability Program Requirements for Systems and Equipments	1989	Added clarification to Additional Usage Requirements.	
54	MIL-STD-1366E	Transportability Criteria	2006		
55	MIL-STD-2073-1E and Change 1	Standard Practice for Military Packaging	2011		
56	~~TMCR 86-01/N~~	~~Air Force Technical Manual Contract Requirements (TMCR)~~	~~2010~~		
	TM-86-01P	Air Force Technical Manual Contract Requirements (TMCR)	2014	Periodic update by external (non-SMC) government organization.	U
57	MIL-PRF-29612B and Notice 2	Training Data Products	2011		
58	AIAA S-120-2006 and SMC tailoring	Mass Properties Control for Space Systems	2006		
	SMC-T-002 (2013)	Tailoring Instructions for AIAA-S-120-2006	2013		

[1] Electronics Information Technology Association
[2] Government Electronics Information Technology Association
[3] Formerly known as Society of Automotive Engineers

Revisions to the SMC Compliance Standards

Line #	Document Number	Title	Pub Date	Change Justification	Change Code
59	EWR 127-1	Eastern and Western Range Range Safety Requirements	1997		
	AFSPCMAN 91-710	Range Safety User Requirements Manual	2004		
60	MIL-STD-882E and SMC tailoring	System Safety Program Requirements	1993		A
	SMC-T-004 ~~(2013)~~ (2012)	Tailoring Instructions for MIL-STD-882E	2012	Corrected citation error.	
61	SMC Standard SMC-S-015	End-of-Life Disposal of Satellites in Geosynchronous Altitude	2010		
62	SMC Standard SMC-S-022	Requirements for End-of-Life Disposal of Satellites in Low Earth Orbits	2010		
63	NASA STD 8719.14, Rev. 4 and SMC tailoring	Process for Limiting Orbital Debris	2009		
	SMC-T-003 (2010)	SMC Tailoring of NASA-STD-8719.14	2010		
64	~~NAS 411~~	~~Hazardous Materials Management Program~~	~~1995~~		
	NAS 411, Rev 3	Hazardous Materials Management Program	2013	Revision by a joint government-industry working group within a nongovernmental standards development process. DOD adopted.	U
65	~~SMC Standard SMC-S-016~~	~~Test Requirements For Launch, Upper-Stage, & Space Vehicles~~	~~2008~~		
	SMC Standard SMC-S-016	Test Requirements for Launch, Upper-Stage, & Space Vehicles	2014	Revision IAW periodic update and stakeholder review process. Previously announced as interim update to 2013 SMC Compliance Standards List.	U
66	~~MIL-STD-1833~~	~~Test Requirements for Ground Equipment and Associated Computer Software Supporting Space Vehicles~~	~~1989~~		
	SMC Standard SMC-S-024	Test Requirements for Ground Systems	2013	Revision IAW periodic update and stakeholder review process. Previously announced as interim update to 2013 SMC Compliance Standards List.	U
67	MIL-STD-810G	Department of Defense Test Method Standard for Environmental Engineering Considerations and Laboratory Tests	2008		

Appendix B. Approved SMC Compliance Standards List

The SMC Compliance Standards List is organized using the following taxonomy of technical areas.

1. Program Execution

1.1. Program Management, including
- Design Reviews
- Risk Management
- Configuration Management
- Production Management
- Earned Value Management

1.2. Systems Engineering, including
- Verification

1.3. Product Assurance, including
- Quality

1.4. Program Protection, including
- Information Assurance and Protection
- Physical Security
- Operational, Communications, and Information Security
- Antitamper

2. Vehicle/Ground Design

2.1. Structures

2.2. Moving Mechanical Assemblies

2.3. Pressurized Hardware

2.4. Electrical Power, including
- Batteries
- Solar Power
- EMI/EMC
- Ground Electrical

2.5. Ordnance

2.6. Parts, Materials, and Processes

3. Information Technology

3.1. Software

3.2. Interoperability

4. Engineering Specialties

4.1. Reliability

4.2. Survivability

4.3. Maintainability, including
- Availability

4.4. Human Systems Integration

4.5. Integrated Logistics Support

4.6. Mass Properties

4.7. System Safety, including
- Range Safety
- Occupational Health

4.8. Environmental, including
- Orbital Debris

5. Test

5.1. Launch/Space Vehicle

5.2. Ground System

Line #	Functional; Technical Area	Document Number	Title	Pub Date	Additional Usage Requirements
1	1.1 Program Execution; Program Management	SMC Standard SMC-S-019, Rev A	Program and Subcontractor Management	2008	None
2	1.1 Program Execution; Program Management	IEEE 15288.2	Technical Reviews and Audits on Defense Programs	2014	None
3	1.1 Program Execution; Program Management	SAE 649-1 and SMC Tailoring	Configuration Management Requirements for Defense Contracts	2014	None
		SMC Standard SMC-T-007	SMC Tailoring of EIA 649-1 - ECP Change Classes	2015	None
4	1.1 Program Execution; Program Management	SAE AS6500	Manufacturing Management Program	2014	None
5	1.1 Program Execution; Program Management	ISO 17666	Space Systems – Risk Management	2003	None
6	1.1 Program Execution; Program Management	ANSI/EIA 748-C	Earned Value Management Systems	2013	None
7	1.2 Program Execution; Systems Engineering	ISO EIA 15288 and	Systems and Software Engineering – System Life Cycle Processes	2015	none
		IEEE 15288.1 and SMC Tailoring	Application of Systems Engineering on Defense Programs	2014	none
		SMC-T-006	Specialty Engineering Supplement to IEEE 15288.1	2015	none
		SMC-T-005	SMC Risk Management Supplement to IEEE 15288.1	2015	none
8	1.3 Program Execution; Product Assurance	SAE AS9100 Rev. C	Quality Systems – Aerospace – Model for Quality Assurance in Design, Development, Production, Installation and Servicing	2009	Use on all segments – space, launch, ground, and user equipment
		SMC Standard SMC-S-003	Quality Space and Launch Requirements Addendum to AS9100C	2015	For space and launch segments, use with AS9100C
9	1.4 Program Execution; Program Protection	CNSSI 1253	Security Categorization and Control Selection for National Security Systems	2014	Coordinate tailoring/CDRLs with SMC/ENP

Line #	Functional; Technical Area		Document Number	Title	Pub Date	Additional Usage Requirements
10	1.4	Program Execution; Program Protection	Intelligence Community Directive Number 503	Intelligence Community Information Technology System Security Risk Management, Certification, & Accreditation	2005	Tailored to generate contractor requirements for portions of the system processing SCI Coordinate with SMC/ENP
11	1.4	Program Execution; Program Protection	DOD 5220-22M	National Industrial Security Program	2006	Coordinate tailoring/CDRLs with SMC/ENP
12	1.4	Program Execution; Program Protection	DODI 8510.01	Risk Management Framework (RMF) for DoD Information Technology (IT)	2014	Coordinate tailoring/CDRLs with SMC/ENP
13	1.4	Program Execution; Program Protection	DODI 5200.39-M incorporating Change 1	Critical Program Information (CPI) Protection Within DoD	2011	Tailoring required to generate requirements language Coordinate with SMC/ENP
14	1.4	Program Execution; Program Protection	AFPAM 63-113	Program Protection Planning for Life Cycle Management	2013	Coordinate tailoring/CDRLs with SMC/ENP
15	1.4	Program Execution; Program Protection	AFPD 63-17	Technology and Acquisition Systems Security Program Protection	2001	Coordinate tailoring/CDRLs with SMC/ENP
16	1.4	Program Execution; Program Protection	AIAA S-110-2005	Space Systems – Structures, Structural Components, and Structural Assemblies	2005	Coordinate tailoring/CDRLs with SMC/ENP
17	2.1	Vehicle/Ground Design Structures	SMC Standard SMC-S-004	Independent Structural Loads Analysis	2008	none
18	2.1	Vehicle/Ground Design Structures	AIAA S-114-2005	Moving Mechanical Assemblies for Space and Launch Vehicles	2005	none
19	2.2	Vehicle/Ground Design Moving Mechanical Assemblies	AIAA S-080-1998	Space Systems, Metallic Pressure Vessels, Pressurized Structures, and Pressure Components	1998	none
20	2.3	Vehicle/Ground Design Pressurized Hardware	AIAA S-081A-2006	Space Systems – Composite Overwrapped Pressure Vessels (COPVs)	2006	Coordinate tailoring with SMC/SES

Line #	Functional; Technical Area	Document Number	Title	Pub Date	Additional Usage Requirements
21	2.3 Vehicle/Ground Design Pressurized Hardware	SMC Standard SMC-S-005	Space Systems – Flight Pressurized Systems	2015	Coordinate tailoring with SMC/SES
22	2.3 Vehicle/Ground Design Pressurized Hardware	SMC Standard SMC-S-006	Solid Rocket Motor Case Design & Test Requirements	2008	Coordinate tailoring with SMC/SES
23	2.3 Vehicle/Ground Design Pressurized Hardware	AIAA S-122-2007	Electrical Power Systems for Unmanned Spacecraft	2007	Coordinate tailoring with SMC/SES
24	2.4 Vehicle/Ground Design Electrical Power	SMC Standard SMC-S-020	Technical Requirements for Wiring Harness, Space Vehicle	2009	none
25	2.4 Vehicle/Ground Design Electrical Power	SMC Standard SMC-S-007	Space Battery	2008	none
26	2.4 Vehicle/Ground Design Electrical Power	SMC Standard SMC-S-017	Lithium Ion Battery for Spacecraft Applications	2008	none
27	2.4 Vehicle/Ground Design Electrical Power	SMC Standard SMC-S-018	Lithium Ion Battery for Launch Vehicle Applications	2008	none
28	2.4 Vehicle/Ground Design Electrical Power	AIAA S-111A-2014	Qualification and Quality Requirements for Space Solar Cells	2014	none
29	2.4 Vehicle/Ground Design Electrical Power	AIAA S-112A-2013	Qualification and Quality Requirements for Electrical Components on Space Solar Panels	2013	none
30	2.4 Vehicle/Ground Design Electrical Power	SMC Standard SMC-S-008	Electromagnetic Compatibility Requirements for Space Equipment and Systems	2008	none
31	2.4 Vehicle/Ground Design Electrical Power	MIL-STD-461F	Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment	2007	none

Line #	Functional; Technical Area		Document Number	Title	Pub Date	Additional Usage Requirements
32	2.4	Vehicle/Ground Design Electrical Power	MIL-STD-1542B	EMC Grounding Requirements for Space System Facilities	1991	none
33	2.4	Vehicle/Ground Design Electrical Power	AIAA S-113-2005	Criteria for Explosive Systems and Devices Used on Space and Launch Vehicles	2005	none
34	2.5	Vehicle/Ground Design Ordnance	ASTM E 1548-2009	Standard Practice for Preparation of Aerospace Contamination Control Plans	2009	Coordinate tailoring with SMC/SEO
35	2.6	Vehicle/Ground Design Parts, Materials, & Processes	MIL-STD-3018	Parts Management	2015	Use on ground and user-equipment
36	2.6	Vehicle/Ground Design Parts, Materials, & Processes	SMC Standard SMC-S-009	Parts, Materials, & Processes Control Program for Space and Launch Vehicles	2013	none
37	2.6	Vehicle/Ground Design Parts, Materials, & Processes	SMC Standard SMC-S-010	Technical Requirements for Electronic Parts, Materials, and Processes For Space and Launch Vehicles	2013	none
38	2.6	Vehicle/Ground Design Parts, Materials, & Processes	SMC Standard SMC-S-011	Parts, Materials, and Processes Control Program for Expendable Launch Vehicles	2015	none
39	2.6	Vehicle/Ground Design Parts, Materials, & Processes	ISO/IEC 15939	Software Engineering – Software Measurement Process	2007	none
40	3.1	Information Technology; Software	SMC Standard SMC-S-012	Software Development	2015	none
41	3.1	Information Technology; Software	DoD Arch V2.1	DOD Architecture Framework Volumes I, II, and III	2009	none

Line #	Functional; Technical Area		Document Number	Title	Pub Date	Additional Usage Requirements
42	3.2	Information Technology; Interoperability	DISR (current version)	DOD Information Technology Standards Registry (DISR)	n/a	Updates 3 times per year; verify current version prior to specification on RFPs
43	3.2	Information Technology; Interoperability	SMC Standard SMC-S-013	Reliability Program for Space Systems	2008	Use on launch and space (payload & bus) vehicles
44	4.1	Engineering Specialties; Reliability	MIL-STD-785B and Notices 1 and 2 only	Reliability Program for Systems and Equipment Development and Production	1988	Use on ground and user equipment Canceled but approved by this list for use at SMC
45	4.1	Engineering Specialties; Reliability	SMC Standard SMC-S-014	Survivability Program for Space Systems	2010	none
46	4.2	Engineering Specialties; Survivability	MIL-STD-470B	Maintainability Program for Systems and Equipment	1989	Canceled but approved by this list for use at SMC
47	4.3	Engineering Specialties; Maintainability	MIL-STD-1472G	DoD Design Criteria Standard – Human Engineering	2012	none
48	4.4	Engineering Specialties; Human Systems Integration	SMC Standard SMC-S-023, Vols 1 & 2	Human Computer Interface Design Criteria Vol 1: User Interface Requirements	2010	none
				Human Computer Interface Design Criteria Vol 2: Space System Operations Displays	2010	none
49	4.4	Engineering Specialties; Human Systems Integration	EIA HEB-1B	Electronic Industries Alliance Engineering Bulletin – Human Engineering – Principles and Practices	2014	none
50	4.5	Engineering Specialties; Integrated Logistics Support	MIL-PRF-49506	Logistics Management Information	1996	none

Line #	Functional; Technical Area		Document Number	Title	Pub Date	Additional Usage Requirements
51	4.5	Engineering Specialties; Integrated Logistics Support	MIL-STD-1545	Optional Spare Parts, Maintenance and Inventory Support of Space and Missile Systems	2013	Use on development contracts Coordinate tailoring with SMC/SLA
			MIL-STD-1538	Spare Parts and Maintenance Support of Space and Missile Systems Undergoing RDT&E	2013	Use on RDT&E efforts Coordinate tailoring with SMC/SLA
52	4.5	Engineering Specialties; Integrated Logistics Support	MIL-STD-130N	Identification Marking of U.S. Military Property	2007	Coordinate tailoring with SMC/SLA
53	4.5	Engineering Specialties; Integrated Logistics Support	MIL-STD-1367A without Notice 1	Packaging, Handling, Storage, and Transportability Program Requirements for Systems and Equipments	1989	Use on Space Segment for handling and storage requirements only Canceled but approved by this list for use at SMC Coordinate tailoring with SMC/SLA
54	4.5	Engineering Specialties; Integrated Logistics Support	MIL-STD-1366E	Transportability Criteria	2006	Use on ground and user equipment Coordinate tailoring with SMC/SLA
55	4.5	Engineering Specialties; Integrated Logistics Support	MIL-STD-2073-1E incorporating Change 1	Standard Practice for Military Packaging	2011	Coordinate tailoring with SMC/SLA
56	4.5	Engineering Specialties; Integrated Logistics Support	TM-86-01P	Air Force Technical Manual Contract Requirements (TMCR)	2014	Web site is restricted access Coordinate with SMC/SLA
57	4.5	Engineering Specialties; Integrated Logistics Support	MIL-PRF-29612B and Notice 2	Training Data Products	2011	Coordinate tailoring with SMC/SLA
58	4.6	Engineering Specialties;	AIAA S-120-2006 and SMC tailoring	Mass Properties Control for Space Systems	2006	none

Line #	Functional; Technical Area	Document Number	Title	Pub Date	Additional Usage Requirements
	Mass Properties	SMC-T-002 (2013)	Tailoring Instructions for AIAA-S-120-2006	2013	none
59	4.7 Engineering Specialties; System Safety	EWR 127-1	Eastern and Western Range Range Safety Requirements	1997	Use on legacy systems initially acquired before 2004
		AFSPCMAN 91-710	Range Safety User Requirements Manual Vols 1-7	2004	Use on launch systems acquired after 2004
60	4.7 Engineering Specialties; System Safety	MIL-STD-882E and SMC tailoring	System Safety Program Requirements	1993	Coordinate tailoring with SMC/SE
		SMC-T-004 (2012)	Tailoring Instructions for MIL-STD-882E	2013	Coordinate tailoring with SMC/SE
61	4.8 Engineering Specialties; Environmental	SMC Standard SMC-S-015	End-of-Life Disposal of Satellites in Geosynchronous Altitude	2010	none
62	4.8 Engineering Specialties; Environmental	SMC Standard SMC-S-022	Requirements for End-of-Life Disposal of Satellites in Low Earth Orbits	2010	none
63	4.8 Engineering Specialties; Environmental	NASA STD 8719.14, Rev. 4 and SMC tailoring	Process for Limiting Orbital Debris	2009	none
		SMC-T-003 (2010)	SMC Tailoring of NASA-STD-8719.14	2010	none
64	4.8 Engineering Specialties; Environmental	NAS 411	Hazardous Materials Management Program	2013	none
65	5.1 Test; Launch/Space Vehicle	SMC Standard SMC-S-016	Test Requirements for Launch, Upper-Stage, & Space Vehicles	2014	none
66	5.2 Test; Ground System	SMC Standard SMC-S-024	Test Requirements for Ground Systems	2013	none
67	5.2 Test; Ground System	MIL-STD-810G	Department of Defense Test Method Standard for Environmental Engineering Considerations and Laboratory Tests	2008	none

Compliance Standards for SMC Acquisitions
31 July 2015

Superseding 28 February 2013 and incorporates all interim updates to date

This list establishes the technical baseline of standards
to be used on all new SMC contracts
in accordance with
SMC Instruction 63-106

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Appendix C. SMC Compliance Standards Applicability

Line #	Functional; Technical Area		Document Number	Title	Primary Applicability per Space System Segment: Launch Vehicle	Space Vehicle	Ground	User
	Compliance Documents for SMC Acquisitions July 2015							
1	1.1	Program Execution; Program Management	SMC Standard SMC-S-019, Rev A	Program and Subcontractor Management	x	x	x	x
2	1.1	Program Execution; Program Management	IEEE 15288.2	Technical Reviews & Audits for Systems, Equipment and Computer Software	x	x	x	x
3	1.1	Program Execution; Program Management	EIA 649-1 and SMC-T-007	Configuration Management Requirements for Defense Contracts SMC Tailoring of EIA 649-1: ECP Change Classes	x	x	x	x
4	1.1	Program Execution; Program Management	AS 6500	Manufacturing Management Program	x	x	x	x
5	1.1	Program Execution; Program Management	ISO 17666	Space Systems – Risk Management	x	x	x	x
6	1.1	Program Execution; Program Management	ANSI/EIA 748-C	Earned Value Management Systems	x	x	x	x
7	1.2	Program Execution; Systems Engineering	ISO-IEC-IEEE 15288 and IEEE-15288.1 and SMC-T-006 and SMC-T-005	Systems and software engineering - System lifecycle processes Application of Systems Engineering on Defense Programs Specialty Engineering Supplement to IEEE 15288.1 SMC Risk Management Supplement to IEEE 15288.1	x	x	x	x

Line #	Compliance Documents for SMC Acquisitions July 2015				Primary Applicability per Space System Segment			
	Functional; Technical Area		Document Number	Title	Launch Vehicle	Space Vehicle	Ground	User
8	1.3	Program Execution; Product Assurance	SAE AS9100 Rev. C	Quality Systems - Aerospace - Model for Quality Assurance in Design, Development, Production, Installation and Servicing	x	x	x	x
	1.3	Program Execution; Product Assurance	SMC Standard SMC-S-003	Quality Space and Launch Requirements Addendum to AAS9100C	x	x		
9	1.4	Program Execution; Program Protection	CNSSI 1253	Security Categorization and Control Selection for National Security Systems	x	x	x	x
10	1.4	Program Execution; Program Protection	Intelligence Community Directive Number 503	Intelligence Community Information Technology System Security Risk Management, Certification, & Accreditation		x	x	x
11	1.4	Program Execution; Program Protection	DOD 5220-22M	National Industrial Security Program	x	x	x	x
12	1.4	Program Execution; Program Protection	DODI 8510.01	Risk Management Framework (RMF) for DoD Information Technology (IT)	x	x	x	x
13	1.4	Program Execution; Program Protection	DODI 5200.39-M incorporating Change 1	Critical Program Information (CPI) Protection Within DoD	x	x	x	x
14	1.4	Program Execution; Program Protection	AFPAM 63-113	Program Protection Planning for Life Cycle Management	x	x	x	x
15	1.4	Program Execution; Program Protection	AFPD 63-17	Technology and Acquisition Systems Security Program Protection	x	x	x	x
16	2.1	Vehicle/Ground Design Structures	AIAA S-110-2005	Space Systems — Structures, Structural Components, and Structural Assemblies	x	x		
17	2.1	Vehicle/Ground Design Structures	SMC Standard SMC-S-004	Independent Structural Loads Analysis	x	x		
18	2.2	Vehicle/Ground Design Moving Mechanical Assemblies	AIAA S-114-2005	Moving Mechanical Assemblies for Space and Launch Vehicles	x	x		
19	2.3	Vehicle/Ground Design Pressurized Hardware	AIAA S-080-1998	Space Systems, Metallic Pressure Vessels, Pressurized Structures, and Pressure Components	x	x		

Line #	Compliance Documents for SMC Acquisitions July 2015				Primary Applicability per Space System Segment			
	Functional; Technical Area		Document Number	Title	Launch Vehicle	Space Vehicle	Ground	User
20	2.3	Vehicle/Ground Design Pressurized Hardware	AIAA S-081A-2006	Space Systems – Composite Overwrapped Pressure Vessels (COPVs)	x	x		
21	2.3	Vehicle/Ground Design Pressurized Hardware	SMC Standard SMC-S-005	Space Flight Pressurized Systems	x	x		
22	2.3	Vehicle/Ground Design Pressurized Hardware	SMC Standard SMC-S-006	Solid Rocket Motor Case Design & Test Requirements	x	x		
23	2.4	Vehicle/Ground Design Electrical Power	AIAA S-122-2007	Electrical Power Systems for Unmanned Spacecraft	*	x		
24	2.4	Vehicle/Ground Design Electrical Power	SMC Standard SMC-S-020	Technical Requirements for Wiring Harness, Space Vehicle	x	x		
25	2.4	Vehicle/Ground Design Electrical Power	SMC Standard SMC-S-007	Space Battery	x	x		
26	2.4	Vehicle/Ground Design Electrical Power	SMC Standard SMC-S-017	Lithium Ion Battery for Spacecraft Applications		x		
27	2.4	Vehicle/Ground Design Electrical Power	SMC Standard SMC-S-018	Lithium Ion Battery for Launch Vehicle Applications	x			
28	2.4	Vehicle/Ground Design Electrical Power	AIAA S-111A-2014	Qualification and Quality Requirements for Space Solar Cells		x		
29	2.4	Vehicle/Ground Design Electrical Power	AIAA S-112A-2013	Qualification and Quality Requirements for Electrical Components on Space Solar Panels		x		
30	2.4	Vehicle/Ground Design Electrical Power	SMC Standard SMC-S-008	Electromagnetic Compatibility Requirements For Space Equipment and Systems	x	x	x	x
31	2.4	Vehicle/Ground Design Electrical Power	MIL-STD-461F	Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment	x	x	x	x
32	2.4	Vehicle/Ground Design Electrical Power	MIL-STD-1542B	EMC Grounding Requirements for Space System Facilities			x	x
33	2.5	Vehicle/Ground Design Ordnance	AIAA S-113-2005	Criteria for Explosive Systems and Devices Used on Space and Launch Vehicles	x	x		

Line #	Compliance Documents for SMC Acquisitions July 2015				Primary Applicability per Space System Segment			
	Functional; Technical Area		Document Number	Title	Launch Vehicle	Space Vehicle	Ground	User
34	2.6	Vehicle/Ground Design Parts, Materials, & Processes	ASTM E 1548-2009	Standard Practice for Preparation of Aerospace Contamination Control Plans	x	x		
35	2.6	Vehicle/Ground Design Parts, Materials, & Processes	ANSI/AIAA R-100A-2001	Recommended Practice for Parts Management			x	x
36	2.6	Vehicle/Ground Design Parts, Materials, & Processes	SMC Standard SMC-S-009	Parts, Materials, & Processes Control Program for Space and Launch Vehicles	x	x		
37	2.6	Vehicle/Ground Design Parts, Materials, & Processes	SMC Standard SMC-S-010	Technical Requirements for Electronic Parts, Materials, and Processes For Space and Launch Vehicles	x	x		
38	2.6	Vehicle/Ground Design Parts, Materials, & Processes	SMC Standard SMC-S-011	Parts, Materials, and Processes Control Program for Expendable Launch Vehicles	x			
39	3.1	Information Technology; Software	ISO/IEC 15939	Software Engineering – Software Measurement Process	x	x	x	x
40	3.1	Information Technology; Software	SMC Standard SMC-S-012	Software Development	x	x	x	x
41	3.2	Information Technology; Interoperability	DoD Arch V2.1	DOD Architecture Framework Volumes I, II, and III	x	x	x	x
42	3.2	Information Technology; Interoperability	DISR (current version)	DOD Information Technology Standards Registry (DISR)		x	x	x
43	4.1	Engineering Specialties; Reliability	SMC Standard SMC-S-013	Reliability Program for Space Systems	x	x		
44	4.1	Engineering Specialties; Reliability	MIL-STD-785B and Notices 1 & 2	Reliability Program for Systems and Equipment Development and Production			x	x

Line #	Functional; Technical Area		Document Number	Title	Primary Applicability per Space System Segment: Launch Vehicle	Space Vehicle	Ground	User
	Compliance Documents for SMC Acquisitions July 2015							
45	4.2	Engineering Specialties; Survivability	SMC Standard SMC-S-014	Survivability Program for Space Systems	x	x	x	x
46	4.3	Engineering Specialties; Maintainability	MIL-STD-470B	Maintainability Program for Systems and Equipment	x	x	x	x
47	4.4	Engineering Specialties; Human Systems Integration	MIL-STD-1472G	DoD Design Criteria Standard – Human Engineering			x	x
48	4.4	Engineering Specialties; Human Systems Integration	SMC Standard SMC-S-023, Vols. 1 & 2	Human Computer Interface Design Criteria Vol. 1: User Interface Requirements Vol. 2: Space System Operations Displays			x	x
49	4.4	Engineering Specialties; Human Systems Integration	EIA HEB-1A	Electronic Industries Alliance Engineering Bulletin - Human Engineering - Principles and Practices			x	x
50	4.5	Engineering Specialties; Integrated Logistics Support	MIL-PRF-49506	Logistics Management Information			x	x
51	4.5	Engineering Specialties; Integrated Logistics Support	MIL-STD-1545	Optional Spare Parts, Maintenance and Inventory Support of Space and Missile System.	x	x	x	x
			MIL-STD-1538	Spare Parts and Maintenance Support of Space and Missile Systems Undergoing RDT&E	x	x	x	x
52	4.5	Engineering Specialties; Integrated Logistics Support	MIL-STD-130N	Identification Marking of U.S. Military Property	x	x	x	x

Line #	Compliance Documents for SMC Acquisitions July 2015				Primary Applicability per Space System Segment			
	Functional; Technical Area		Document Number	Title	Launch Vehicle	Space Vehicle	Ground	User
53	4.5	Engineering Specialties; Integrated Logistics Support	MIL-STD-1367A without Notice 1	Packaging, Handling, Storage, and Transportability Program Requirements for Systems and Equipments	x	x	x	x
54	4.5	Engineering Specialties; Integrated Logistics Support	MIL-STD-1366E	Transportability Criteria	x	x	x	x
55	4.5	Engineering Specialties; Integrated Logistics Support	MIL-STD-2073-1E incorporating Change 1	Standard Practice for Military Packaging	x	x	x	x
56	4.5	Engineering Specialties; Integrated Logistics Support	TMCR-86-01P	Air Force Technical Manual Contract Requirements (TMCR)			x	x
57	4.5	Engineering Specialties; Integrated Logistics Support	MIL-PRF-29612B and Notice 2	Training Data Products			x	x
58	4.6	Engineering Specialties; Mass Properties	AIAA S-120-2006 and SMC-T-002	Mass Properties Control for Space Systems Tailoring Instructions for AIAA-S-120-2006	x	x		
59	4.7	Engineering Specialties; System Safety	EWR 127-1	Eastern and Western Range Range Safety Requirements	x	x		
			AFSPCMAN 91-710	Range Safety User Requirements Manual	x	x		
60	4.7	Engineering Specialties; System Safety	MIL-STD-882E and SMC-T-004	System Safety Program Requirements Tailoring Instructions For MIL-STD-882E	x	x	x	x

Line #	Compliance Documents for SMC Acquisitions July 2015				Primary Applicability per Space System Segment			
	Functional; Technical Area		Document Number	Title	Launch Vehicle	Space Vehicle	Ground	User
61	4.8	Engineering Specialties; Environmental	SMC Standard SMC-S-015	End-of-Life Disposal of Satellites in Geosynchronous Altitude		x	x	
62	4.8	Engineering Specialties; Environmental	SMC Standard SMC-S-022	Requirements for End-of-Life Disposal of Satellites in Low Earth Orbits		x	x	
63	4.8	Engineering Specialties; Environmental	NASA STD 8719.14, Rev. 4 and SMC-T-003	Process for Limiting Orbital Debris SMC Tailoring of NASA-STD-8719.14	x	x		
64	4.8	Engineering Specialties; Environmental	NAS 411	Hazardous Materials Management Program	x	x	x	
65	5.1	Test; Launch/Space Vehicle	SMC Standard SMC-S-016	Test Requirements for Launch, Upper-Stage, & Space Vehicles	x	x		
66	5.2	Test; Ground System	SMC Standard SMC-S-024	Test Requirements for Ground Systems			x	
67	5.2	Test; Ground System	MIL-STD-810G	Department of Defense Test Method Standard for Environmental Engineering Considerations and Laboratory Tests			x	x
				Document count:	52	57	44	40

Appendix D. Specifications and Standards Comment Form

SMC Standard Improvement Proposal		
INSTRUCTIONS 1. Complete blocks 1 through 7. All blocks must be completed. 2. Send to the Preparing Activity specified in block 8. NOTE: Do not be used to request copies of documents, or to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements. Comments submitted on this form do not constitute a commitment by the Preparing Activity to implement the suggestion; the Preparing Authority will coordinate a review of the comment and provide disposition to the comment submitter specified in Block 6.		
SMC STANDARD CHANGE RECOMMENDATION:	**1. Document Number** TOR-2015-03035	**2. Document Date** July 2015
3. Document Title	SMC Compliance Standards List	
4. Nature of Change (Identify paragraph number; include proposed revision language and supporting data. Attach extra sheets as needed.)		
5. Reason for Recommendation		
6. Submitter Information		
a. Name	**b. Organization**	
c. Address	**d. Telephone**	
e. E-mail address	**7. Date Submitted**	
8. Preparing Activity	Space and Missile Systems Center AIR FORCE SPACE COMMAND 483 N. Aviation Blvd. El Segundo, CA 91245 Attention: SMC/EN	

AEROSPACE REPORT NO.
TOR-2015-03035

Space and Missile Systems Center Compliance Specifications and Standards

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